

INSTRUCTION MANUAL

Semi-Automatic

Premium Digital Blood Pressure Arm Monitor

04-391-001

Please read this instruction manual
completely before operating this unit.



English • Spanish

Limited Lifetime Warranty

MABIS Healthcare guarantees that its Digital Blood Pressure Monitor will be free from manufacturing defects under normal use for as long as the original purchaser owns the product. This warranty covers only normal use, and does not apply to use in any clinical or commercial applications. This warranty does not cover batteries or other power sources that may be provided with or used with the Digital Blood Pressure Monitor. This warranty is voided if the Digital Blood Pressure Monitor is misused or abused in any manner.

If the Digital Blood Pressure Monitor fails to operate during the time the original purchaser owns it, return it postage prepaid along with \$5.00 for return shipping and insurance to: MABIS Healthcare, Attn: Repair Department, 1931 Norman Drive South, Waukegan, IL 60085. When returning a product, please also include a letter with your name, address, phone number and brief description of the specific problem. Please carefully package the product to avoid any damage that may occur while in the transit. Packaging insurance with returned receipt is recommended. MABIS will repair or replace the defective unit at the option of MABIS Healthcare. Repair or replacement of the defective unit, at the warrantor's option, is the sole remedy under this warranty.

ANY IMPLIED WARRANTIES WHICH THE PURCHASER MAY HAVE ARE LIMITED IN DURATION TO THE TIME THAT THE ORIGINAL CONSUMER PURCHASER OWNS THE PRODUCT. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty constitutes the warrantor's only responsibility and obligation to repair and/or replace materials or components, or refund the purchase price. **MABIS will not be responsible for any indirect, incidental, special, consequential, or punitive damages or other loss**, including, but not limited to, damage to or loss of other property or equipment and personal injuries, whether to purchaser or others. MABIS shall in no event be liable to the purchaser for any amount in excess of the cost of repair and/or replacement of the unit, or the purchase price of the unit. Some states do not allow the exclusive or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Toll-Free Customer Care Help Line: 1-800-622-4714
Monday - Friday 8:00 am - 4:30 pm CST



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Introduction

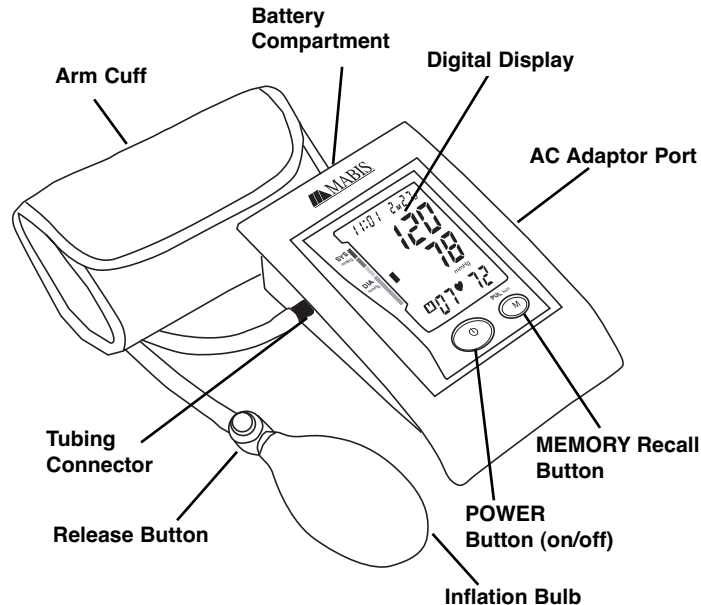
To achieve the maximum benefit from your blood pressure monitor, we recommend that you first consult with your physician or trained healthcare professional.

Thank you for purchasing a MABIS Semi-Automatic Digital Blood Pressure Monitor. With proper care and use, your monitor will provide you with many years of reliable readings.

The method of measurement that your Semi-Automatic Monitor uses is called the oscillometric method. The monitor detects your blood's movement through the artery in your arm and converts the movements into a digital reading. The oscillometric method does not require a stethoscope, making the monitor easy to use.

Blood pressure readings determined with this device are equivalent to measurements obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard for Electronic or Automated Sphygmomanometers.

Product Identification & Caution



CAUTION:

You can stop the inflation or deflation process anytime by pressing the Release button.

Why Monitor Your Blood Pressure at Home?

Many people experience "White Coat Syndrome", which is a temporary elevation of blood pressure during a visit at their physician's office. Although only temporary, it can cause blood pressure to rise and give a false indication of a person's true blood pressure.

Whether or not you experience "White Coat Syndrome", home blood pressure monitoring provides:

- 1) The opportunity to supplement your physician's office measurements.
- 2) An accurate indication of any change.
- 3) A record to assist your physician in evaluating your health and making important decisions.
- 4) Consistent, daily measurements of your blood pressure.

NOTE: Variations in your individual readings should only be interpreted by your physician or trained healthcare professional.

General Blood Pressure Information

What is Blood Pressure?

Blood pressure is the pressure that is exerted by blood flowing against the walls of the blood vessels throughout your body.

Your heart, which is the center of the circulatory system, provides the force for the blood to flow or circulate. When your heart contracts or beats, the blood is forced through the blood vessels increasing the pressure. This is the highest pressure in the cycle or what is referred to as **SYSTOLIC** blood pressure. In between beats, your heart relaxes and your blood pressure decreases. This is referred to as **DIASTOLIC** blood pressure.

This complete series of events, which occurs in a single heartbeat, is known as the **CARDIAC CYCLE**.

Your MABIS Semi-Automatic Blood Pressure Monitor will automatically read your blood pressure and display both systolic and diastolic readings on the screen. Your systolic will be positioned as the upper number and the diastolic reading will be the lower number.

(systolic)
120/80
(diastolic)

Blood pressure is measured in millimeters (mm) of mercury (Hg) and is generally recorded with the systolic pressure (120) listed first and the diastolic pressure (80) listed second. The numbers are typically separated by a slash mark (/) as shown.

Both pressure readings, the SYSTOLIC and DIASTOLIC, are necessary for a physician to evaluate the status of a patient's blood pressure.

Please contact your physician for specific information regarding your own blood pressure.

What Influences Blood Pressure?

Many factors such as genetics, age, sex, altitude, physical activity, anxiety, muscular development, certain medications or even the time of day can influence blood pressure. Influences such as sleep or relaxation decrease blood pressure, while anxiety or exercise increase blood pressure.

WHO Blood Pressure Classifications

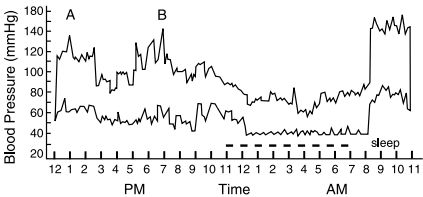
Standards for assessment of high or low blood pressure have been established by the World Health Organization (WHO) as shown on the following chart:

CATEGORY	SYSTOLIC (mmHg)	DIASTOLIC (mmHg)	COLOR INDICATOR
Optimal	<120	<80	GREEN
Normal	120-129	80-84	GREEN
High - Normal	130-139	85-89	GREEN
Stage 1 - Mild Borderline Hypertension	140-159	90-99	YELLOW
Stage 2 - Moderate Hypertension	160-179	100-109	ORANGE
Stage 3 - Severe Hypertension	≥180	≥110	RED
Isolated Systolic Hypertension	≥140	<90	
	140-159	<90	YELLOW
	160-179	<90	ORANGE
	≥180	<90	RED

This chart is only a general guideline. Contact your physician or trained healthcare professional to determine your NORMAL blood pressure.

Variations in Blood Pressure

Blood pressure is influenced by many factors and can change from moment to moment. Normally, blood pressure is lowest during sleeping periods and rises during the day. The graph below represents variations in blood pressure shown over a day with measurements taken every 5 minutes.



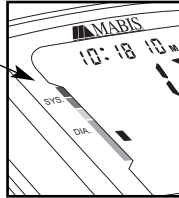
The dotted line represents the sleep period. The rise in blood pressure at 1 p.m. (A in the graph) corresponds to a stressful occurrence and at 7 p.m. (B in the graph) a period of exercise.

Important Information Before Use

1. Blood pressure readings should be interpreted by a physician or trained healthcare professional, who is familiar with your medical history.
2. Perform your measurement in a quiet place. You should be seated and relaxed.
3. Avoid smoking, eating, taking medication, alcohol consumption or physical activity 30 minutes prior to taking a reading. If you are exhibiting signs of stress, avoid taking your measurement until the feeling subsides.
4. Rest 15 minutes prior to taking a reading.
5. Remove any constrictive clothing or jewelry that may interfere with the cuff placement.
6. Keep the monitor stable during measurements. Remain still; do not talk during measurements.
7. Record your daily readings on the chart provided.
8. Take your readings at the same time, each day (or as recommended by your physician).
9. Wait a minimum of 15 minutes between readings. The wait time may vary depending on individual physiological characteristics.
10. This device is intended for adult use.
11. The inflation or deflation process can be stopped by pressing the Release button.

World Health Organization (WHO) Indicator

The WHO Indicator, located on the left side of the display, will identify your reading within a range in accordance with the guidelines set by the World Health Organization (WHO). See the chart below for reference.



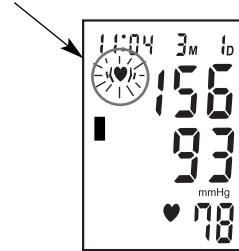
<div>SYS</div> <div>DIA</div>	Stage 3 Hypertension Systolic pressure: ≥ 180 mmHg -or- Diastolic pressure: ≥ 110 mmHg
<div>SYS</div> <div>DIA</div>	Stage 2 Hypertension Systolic pressure: 160-179 mmHg -or- Diastolic pressure: 100-109 mmHg
<div>SYS</div> <div>DIA</div>	Stage 1 Hypertension Systolic pressure: 140-159 mmHg -or- Diastolic pressure: 90-99 mmHg
<div>SYS</div> <div>DIA</div>	High Normal Systolic pressure: 130-139 mmHg -or- Diastolic pressure: 85-89 mmHg
<div>SYS</div> <div>DIA</div>	Normal Systolic pressure: 120-129 mmHg -or- Diastolic pressure: 80-84 mmHg
<div>SYS</div> <div>DIA</div>	Optimal Systolic pressure: < 120 mmHg -and- Diastolic pressure: < 80 mmHg

Irregular Heartbeat Detection

Your digital blood pressure monitor features Irregular Heartbeat Detection. This feature allows users to accurately monitor blood pressure even if an irregular heartbeat should occur.

When an irregular heartbeat is detected, the IHB icon will appear on the display, *Fig. 1*.

NOTE: Please consult with your physician or trained healthcare professional for further information regarding an irregular heartbeat and if this symbol appears frequently at the end of a reading.



Battery Installation/Replacement

- 1) Press down on tab and lift the cover.
- 2) Insert or replace 4 "AA" batteries into the compartment, matching the indicated polarity symbols, *Fig. 1*.
- 3) To close, match up and connect the bottom hooks of the cover, then push the top end.

NOTE: Replace the batteries when the Low Battery symbol appears on the display or when the display remains blank when the POWER button is pressed.

- 4) It is recommended to remove the batteries if the unit will not be used for an extended period of time.

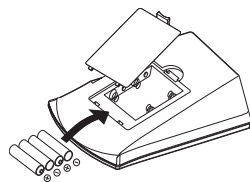


Fig. 1

AC Power Adapter (optional)

An AC adapter is available separately for battery-free operation. The AC adapter plugs into the side of the unit as shown, *Fig. 2*. Please remember to practice electrical safety precautions while using the adapter. To order an AC adapter, please see the enclosed order form.

AC Adapter

Output: 6V DC 600mA

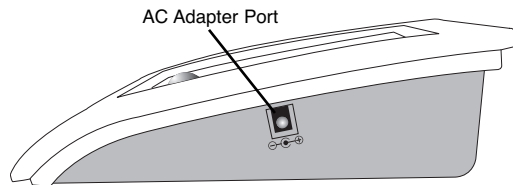


Fig. 2

Setting the Date/Time

NOTE: When the unit is off, the date and time will still appear at the top of the screen.

1. When the unit is off, press and release both the POWER and MEMORY button at the same time. The month will begin to flash, *Fig. 1*.

2. Press the MEMORY button to change until the desired number appears.

NOTE: To scroll through the numbers quicker, hold down the MEMORY button.

3. Press the POWER button to set the entry.
4. The date, *Fig. 2*, followed by the hour and minutes will blink. Repeat steps 2 and 3 to adjust the date/time setting.
5. After setting the minutes, the unit will automatically exit out of the date/time setting mode, *Fig. 3*.

NOTE: The time is expressed in 24hr military time. The chart below explains the time conversion.

Regular Time (12 hours)	Military Time (24 hours)	Regular Time (12 hours)	Military Time (24 hours)
12 am Midnight	0	12 pm Noon	12
1 am	1	1 pm	13
2 am	2	2 pm	14
3 am	3	3 pm	15
4 am	4	4 pm	16
5 am	5	5 pm	17
6 am	6	6 pm	18
7 am	7	7 pm	19
8 am	8	8 pm	20
9 am	9	9 pm	21
10 am	10	10 pm	22
11 am	11	11 pm	23

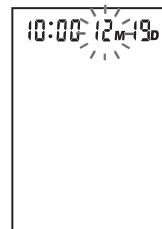


Fig. 1

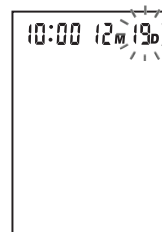


Fig. 2

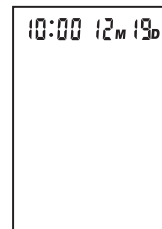


Fig. 3

Applying Your Blood Pressure Cuff

Before applying your blood pressure cuff, be sure you have selected the appropriate cuff:

Small Adult Cuff fits arm circumference 8-5/8" - 11-3/4" (22-30 cm)

Adult Cuff fits arm circumference 11-3/4" - 16-1/2" (30-42 cm)

Large Adult Cuff fits arm circumference 16-1/2" - 18-7/8" (42-48 cm)

NOTE: If for any reason you are unable to or should not use your left arm, please modify the following instructions and apply the cuff to your right arm. Your physician can tell you which arm is best for you to use.

1. Remove any constrictive clothing or jewelry that may interfere with the cuff placement.
2. Be seated with your feet flat on the floor.
3. Position the cuff on a solid surface with the tubing facing UP and AWAY from you, *Fig. 1*. The metal bar on the cuff should be to the left of the tubing.
4. Widen or open the cuff by pulling or rolling the bottom of the cuff towards the right, *Fig. 2*. This should open the cuff, creating a cylinder. Do not extend the cuff beyond the metal bar.
5. Insert your arm into the cuff (cylinder). Position the () mark over the main artery (on the inside of your arm), *Fig. 3*.
6. The bottom edge of the cuff should be positioned approximately one inch ABOVE the elbow joint, *Fig. 4*.
7. Reaching underneath your left arm with your right hand, pull the end of the cuff towards your body to tighten the cuff, *Fig. 5*. Wrap and secure the cuff making sure that the () mark remains as shown, *Fig. 3*.
8. The cuff should fit comfortably, yet snugly around your arm. You should be able to insert two fingers between your arm and the cuff.



Fig. 1



Fig. 2

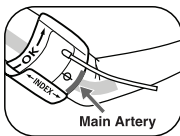


Fig. 3

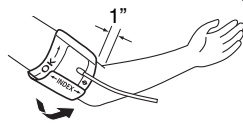


Fig. 4

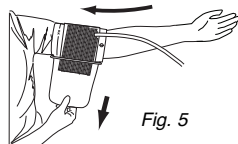


Fig. 5

Taking Your Blood Pressure Reading

NOTE: The cuff size is suitable for use when the vertical "Index" mark is within the horizontal "OK" range. A different sized cuff is needed if the "Index" mark is outside of the "OK" range.

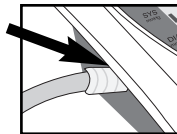


Fig. 1

Proceed only after reading the previous sections of this manual.

1. Position the monitor on a flat, stable surface with the digital display panel in view. Insert the cuff tubing connector into the left side of the monitor, *Fig. 1*.
2. Rest your elbow on a solid surface with your palm facing upward. Elevate your arm so that the cuff is at the same level as your heart, *Fig. 2*. Relax your left hand.
3. Press the POWER Button again to turn the unit on.
4. This unit will run a self-test, *Fig. 3*, and show the last measured reading, *Fig. 4*, or if there is no previous measurement, "0" as shown in *Fig. 5*.
5. When the display appears as shown, *Fig. 6*, the monitor is ready. Note: If a downward arrow () flashes, there is air remaining in the cuff. The air will be released by the "Automatic Electronic Air Release Valve" until "0" appears on the display. To release the air quickly press the release button.
6. Using your right hand, squeeze and release the inflation bulb at a steady pace. The inflation pressure must be 50-60 mmHg above your normal systolic pressure. If the pressure in the cuff is insufficient, an upward arrow () will flash. Continue to steadily inflate the cuff to the proper level. Once the unit beeps, stop inflating the cuff. The unit will automatically begin to deflate.
7. Upon completion, your blood pressure (systolic and diastolic) measurement will display with the downward arrow () flashing to let you know to press the release button to release the residual air quickly, *Fig. 7*.
8. Your measurement will be automatically saved in the memory.
9. To conserve the batteries, press the POWER button to turn the power off. Otherwise, the unit will automatically shut off after approximately 1 minute.
10. Disconnect the tubing from the monitor prior to storing.

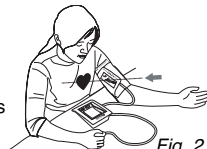


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7

Recalling Measurements in Memory

You can recall up to 60 total measurements in memory. These measurements can be shared with your physician or trained healthcare professional.

1. Press and release the MEMORY button. It will show how many measurements are stored within the bank, followed by the last result, *Fig. 1*.
2. Press the MEMORY button again to scroll through the saved measurements. After you've scrolled through all the readings, the unit will automatically turn off.

NOTE: When the number of readings exceeds 60, the oldest data will be replaced with the new record.

To erase all stored measurements:

1. Press and release the MEMORY button. The unit will display how many measurements are stored within the bank.
2. Press and hold down the MEMORY button until two horizontal lines flash. This indicates that all measurements have been erased, *Fig. 2*.



Fig. 1

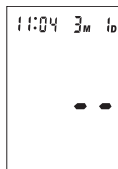


Fig. 2

Description of Display Symbols

SYS	Indicates a measurement	♥	Shows the pulse rate per minute.
DIA		EE	Occurs when an error was made during measurement.
SYS	Indicates a measurement within Stage 2 Hypertension.	♥(♥)	Appears when there is an irregular heartbeat detected during measurement.
DIA		⏏	Appears when the cuff is unstable or it has too much air left in it. Once the arrow stops flashing, the unit is ready to take a measurement.
SYS	Indicates a measurement	⏏	Appears when the unit is ready or a measurement error has occurred. Restart the measurement if an error occurs.
DIA		M	Appears when recalling a measurement from memory.
	Appears when batteries should be replaced.		

Troubleshooting

If any abnormality occurs during use, please check and correct the following:

Condition	Correction
Display is blank when power is on.	Check and correct the polarity of the installed batteries. Reinstall or replace batteries.
Measurement incomplete or abnormally low or high values displayed.	Review and follow "Applying Your Blood Pressure Cuff" and "Taking Your Blood Pressure Reading" sections. Replace the batteries.
EE symbol displays.	Do not talk or move during the measurement. Review "Applying Your Blood Pressure Cuff" section.
Measurements are different from	Remember, blood pressure readings

Care and Maintenance

those typically measured by physician or every measurement reading is different. by your physician.

are influenced by physical and mental conditions and/or even the time of day. Daily measurements should be interpreted

1. Disconnect the cuff tubing from the monitor and remove batteries prior to storing.

4. Do not store the unit where it will be exposed to direct sunlight, dust or humidity.

5. Avoid extreme temperatures.

6. Never disassemble the monitor or cuff.

7. Dropping or subjecting your blood pressure monitor to strong shocks should be avoided.

Name and model number	Semi-Automatic Premium Digital Blood Pressure Arm Monitor, 04-391-001
Display system	Digital display/LCD
Measuring method	Oscillometric
Power source	4 "AA" batteries
Measuring range	Pressure: 0-300 mmHg Pulse: 30-180 beats/minute
Accuracy	Pressure: ± 3 mmHg Pulse: $\pm 5\%$ of reading
Inflation	Manual Inflation
Deflation	Automatic Pressure Release Valve/Manual fast release
Memory	Built-in memory enabling display of up to 60 measurements
Automatic shut-off	Approximately 1 minute after last button operation
Operation environment	Temperature 41°F – 104°F (5°C – 40°C) Humidity < 80%
Storage environment	Temperature -4°F – 131°F (-20°C – 55°C) Humidity < 95%
Monitor dimensions	4-1/8" x 6" x 1-3/4"
Weight	11.8 oz. (without batteries)
Arm circumference range	Adult size cuff fits arm circumference: 11-3/4" - 16-1/2" (30-42 cm),
Accessories	Cuff, detailed guidebook, quick start guide,

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Sample Blood Pressure Log

Name:

Age:

Weight:

Date	1/2	1/2	1/3																	
Time	7:00 AM	9:30 PM	7:30 AM																	
mmHg																				
240																				
220																				
200																				
180																				
160																				
140																				
120																				
100																				
80																				
60																				
Pulse	68	71	69																	
Body Condition	Headache in AM	1	Tired, Restless Night																	

Blood Pressure Log

Name:

Age:

Weight:

Date															
Time															
mmHg															
240															
220															
200															
180															
160															
140															
120															
100															
80															
60															
Pulse															
Body Con- dition															